



**TOSHIBA**

**20W330DB  
23W330DB**

**OWNER'S MANUAL**

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## Safety Precautions

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken to obtain the best results and for safety to be assured. Please read the points below for your own safety. They are of a general nature, intended to help with all electronic consumer products and some points may not apply to the goods you have just purchased.

### Air Circulation

Leave **more than** 10cm clearance around the television to allow adequate ventilation. This will prevent overheating and possible damage to the television. Dusty places should also be avoided.

### Heat Damage

Damage may occur if the television is left in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity, or locations where the temperature is likely to fall below 5°C (41°F).

### Mains Supply

**The set should be operated only from a 220-240 V AC 50 Hz outlet.** DO ensure that the television is not standing on the mains lead. DO NOT cut off the mains plug from this equipment, this incorporates a special Radio Interference Filter, the removal of which will impair its performance. **IF IN DOUBT PLEASE CONSULT A COMPETENT ELECTRICIAN.**

### Do

**DO** read the operating instructions before you attempt to use the equipment.

**DO** ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturers' instructions. Switch off and withdraw the mains plug before making or changing connections.

**DO** consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

**DO** be careful with glass panels or doors on equipment.

### Do not

**DON'T** remove any fixed cover as this may expose dangerous voltages.

**DON'T** obstruct the ventilation openings of the equipment with items such as newspapers, tablecloths, curtains, etc. Overheating will cause damage and shorten the life of the equipment.

**DON'T** allow electrical equipment to be exposed to dripping or splashing or objects filled with liquids, such as vases, to be placed on the equipment.

**DON'T** place hot objects or naked flame sources, such as lighted candles or nightlights on, or close to equipment. High temperatures can melt plastic and lead to fires.

**DON'T** use makeshift stands and NEVER fix legs with wood screws. To ensure complete safety, always fit the manufacturers' approved stand, bracket or legs with the fixings provided according to the instructions.

**DON'T** leave equipment switched on when it is unattended, unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off by withdrawing the plug, make sure your family know how to do this. Special arrangements may need to be made for people with disabilities.

**DON'T** continue to operate the equipment if you are in any doubt about it working normally, or it is damaged in any way - switch off, withdraw the mains plug and consult your dealer.

**WARNING - excessive sound pressure from earphones or headphones can cause hearing loss.**

**ABOVE ALL - NEVER** let anyone, especially children, push or hit the screen, push anything into holes, slots or any other openings in the case.

**NEVER** guess or take chances with electrical equipment of any kind - it is better to be safe than sorry.

**THE MAINS SOCKET OUTLET IS USED AS A DISCONNECTING DEVICE AND THEREFORE SHOULD BE READILY OPERABLE.**

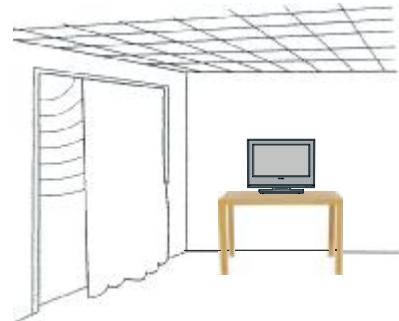
## Installation and important information

### Where to install

Locate the television away from direct sunlight and strong lights; soft, indirect lighting is recommended for comfortable viewing. Use curtains or blinds to prevent direct sunlight falling on the screen.

Place on a sturdy platform, the mounting surface should be flat and steady. It **must** then be secured to the wall with a sturdy tie using the clip on the back of the television, this will prevent it from falling over.

Make sure the television is located in a position where it cannot be pushed or hit by objects and that small items cannot be inserted into slots or openings in the case.



### Please take note

#### EXCLUSION CLAUSE

Toshiba shall under no circumstances be liable for loss and/or damage to the product caused by:

- i) fire;
- ii) earthquake;
- iii) accidental damage;
- iv) intentional misuse of the product;
- v) use of the product in improper conditions;
- vi) loss and/or damage caused to the product whilst in the possession of a third party;
- vii) any damage or loss caused as a result of the owner's failure and/or neglect to follow the instructions set out in the owner's manual;
- viii) any loss or damage caused directly as a result of misuse or malfunction of the product when used simultaneously with associated equipment;

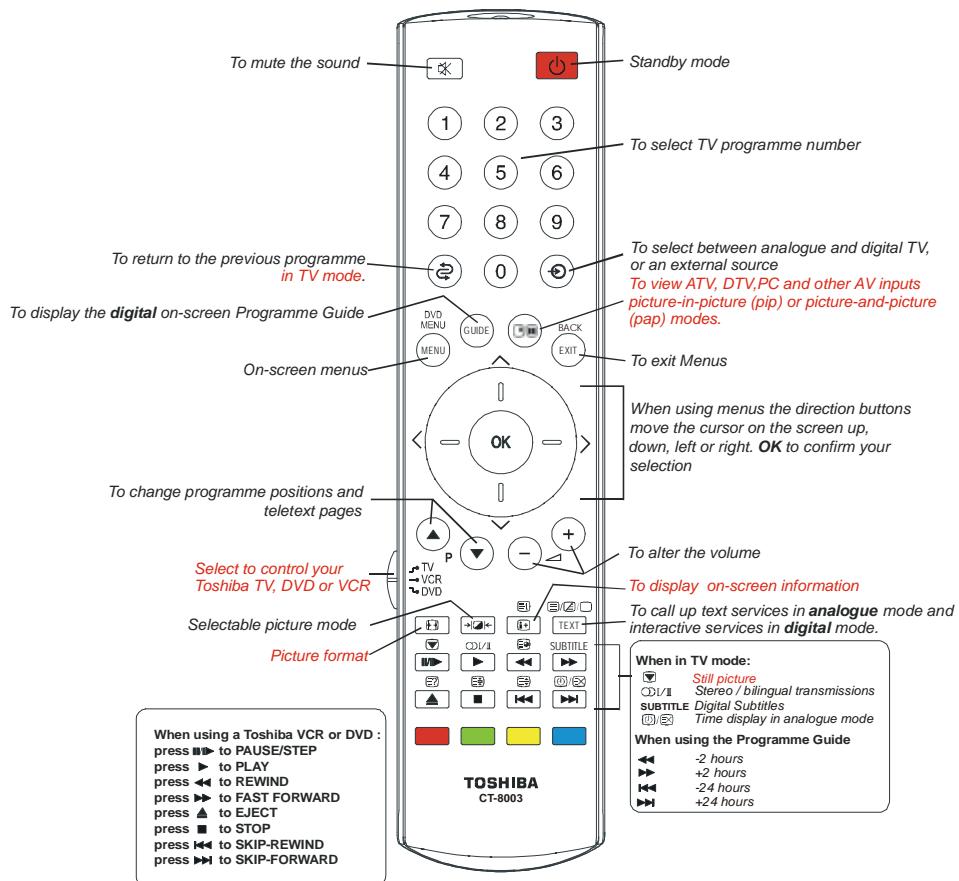
Furthermore, under no circumstances shall Toshiba be liable for any consequential loss and/or damage including but not limited to the following, loss of profit, interruption of business, the loss of recorded data whether caused during normal operation or misuse of the product.

**Note:** A Toshiba wall bracket or stand, where available, must be used. If a non Toshiba wall bracket or stand is used the products' BEAB approval will become void and the equipment is then used at the consumers own risk.

If stationary images generated by text services, channel identification logos, computer displays, video games, on screen menus, etc. are left on the television screen for any length of time they could become conspicuous, it is always advisable to reduce both the brightness and contrast settings.

## The remote control

Simple at-a-glance reference of your remote control.



### Inserting batteries and effective range of the remote

Remove the back cover to reveal the battery compartment and make sure the batteries are inserted the right way round. Suitable battery types for this remote are AAA, IEC R03 1.5V.

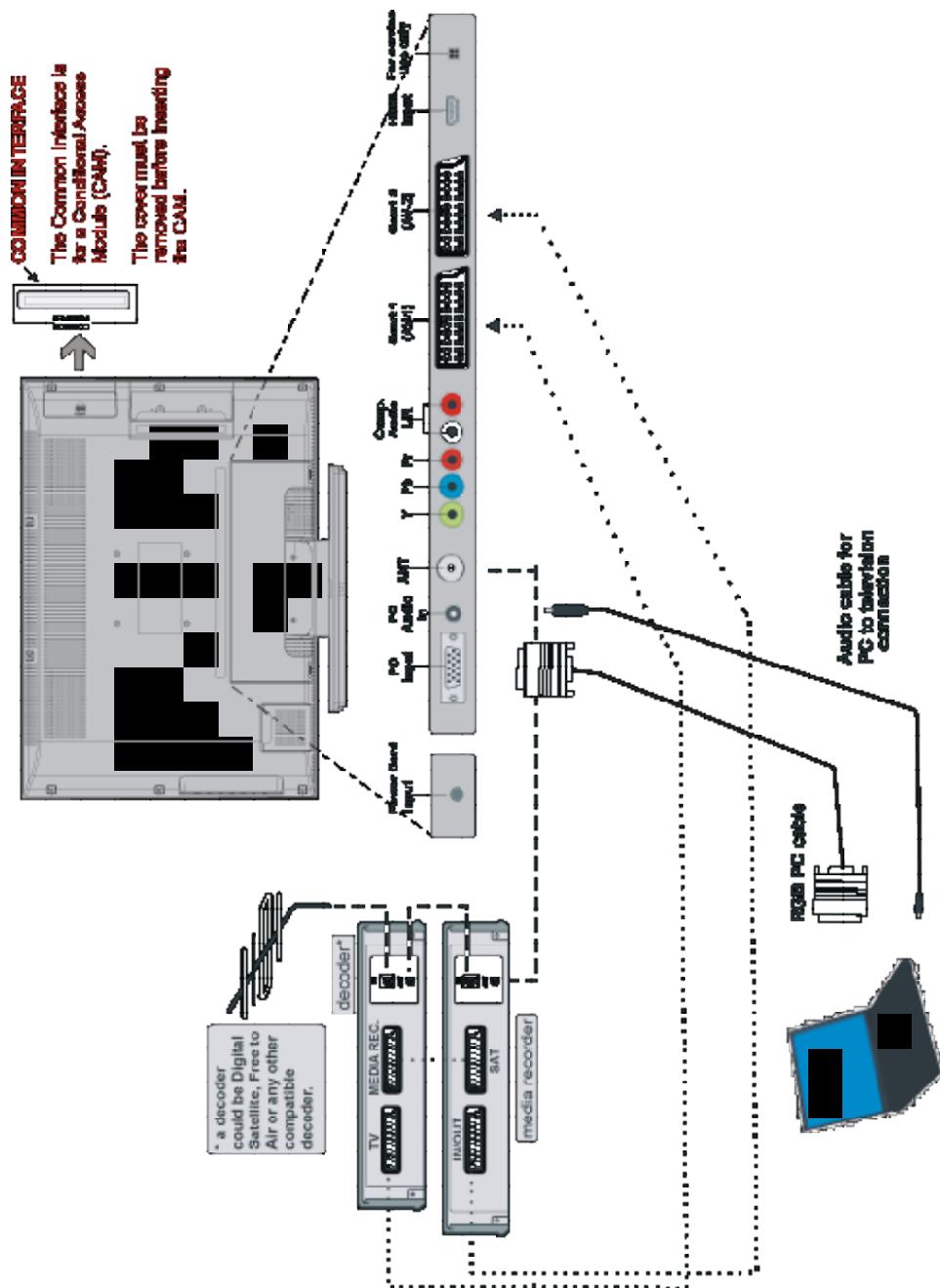
Do not combine a used, old battery with a new one or mix battery types. Remove dead batteries immediately to prevent acid from leaking into the battery compartment. Dispose of them in a designated disposal area.

**Warning:** Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

The performance of the remote control will deteriorate beyond a distance of five metres or outside an angle of 30 degrees from the centre of the television. If the operating range becomes reduced the batteries may need replacing.

## Connecting external equipment

Before connecting any external equipment, disconnect from the main power.



## Connecting external equipment continued,

### Aerial cables:

Connect the aerial to the socket on the rear of the television. If you use a decoder and/or a media recorder it is essential that the aerial cable is connected through the decoder and/or through the media recorder to the television.

### SCART leads:

Connect the media recorder **IN/OUT** socket to the television. Connect the decoder **TV** socket to the television. Connect the media recorder **SAT** socket to the decoder **MEDIA RECORDER** socket.

Before running **APS (AUTO PROGRAMMING SYSTEM)** put your decoder and media recorder to **Standby**.

A wide variety of external equipment can be connected to the back of the television, therefore the relevant owners manuals for *all* additional equipment *must* be referred to.

**NOTE:** *Because FAV CVBS and SVHS Y are connected parallelly, the picture may blend if the two peripherals are used at the same time. Likewise, because SVHS C and SCART II R are connected parallelly, the picture may blend if the two peripherals are used at the same time. Thus these two are not to be used at the same time.*

If connecting S-VIDEO equipment, set the **INPUT** for **AV-4 S**. See [page 27](#).

If the television automatically switches over to monitor external equipment, return to normal television by pressing the desired programme position button. To recall external equipment, press  to select between **ATV/DTV**, **AV-1**, **AV-2**, **AV-2S**, **AV-4**, **AV-4S**, **YPbPr**, **HDMI** or **PC RGB**.

### Connecting the PC via PC input

- Power off both computer and TV before making any connections.
- Connect the PC cable to the PC input of your TV and to the 15-pin connector on the rear of your computer.
- Tighten the screws on the plugs until the connectors are fastened securely.
- If you are using Windows operating system running on a PC with a Microsoft Plug&Play compatible video card, your system will select the appropriate timing for your monitor. No additional device driver is required.
- For PC sound, use stereo jack socket located at the right side of the tuner.

### High Definition

Your TV is capable of displaying High Definition pictures from devices such as a High Definition Satellite Receiver or DVD Player. These devices must be connected via the HDMI socket or YPbPr (Component) sockets. These sockets can accept either 720p or 1080i signals.

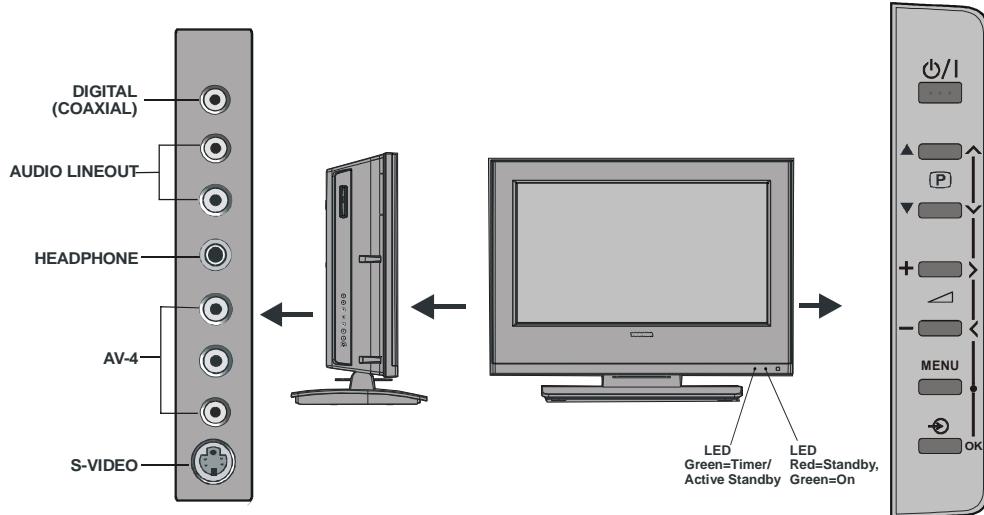
**PLEASE NOTE:** Although this television is able to connect to HDMI equipment, it is possible that some equipment may not operate correctly. HDMI cables should be less than 5m.

**NOTE:** *It is recommended that approved HDMI cables up to 5m long is used. If the unit has DVI output, a special conversion cable from DVI to HDMI will be required.*

*HDMI, the HDMI logo, and High Definition Multi Media Interface are trade marks, or registered trade marks of HDMI licensing, LLC.*

## Connections and controls

A wide variety of external equipment can be connected via the sockets located on the side of the television. Whilst all the necessary adjustments and controls for the television are made using the remote control, the buttons on the top of the television may be used for some functions.



### Switching on

If the power-on light is unlit, connect the plug of the mains socket-outlet and the red LED will light. Press the STAND-BY button of the television to switch the television on. Then the LED will turn GREEN.

To put the television into Standby, press  on the remote control or  on the TV; the green active Standby LED will appear (see "Software Upgrade" section) next to the green ON LED for a few moments. The red Standby LED will then light. To view the television press  again or any of the number buttons. The picture may take a few seconds to appear.

### Using the remote control

Press the MENU button on the remote control to see the menus.

In TV mode the menu appears as a group of icons each for a menu option. Press the Left or Right button to select a topic.

To use the options press the Up and Down buttons on the remote control to move up and down through them and OK, Left or Right buttons to select the required choice. Follow the on screen instructions. The functions of each menu are described in detail throughout the manual.

### Using the controls and connections

Using the control buttons on the top of the TV:

- To alter the volume press +  - .
- To alter the programme position press   on the top of the TV.
- Press MENU and +  -  and   to control the menu options.
- Press MENU to finish.

When connecting mono sound equipment to **AV-4 (FRONT-AV)**, connect the audio output of the equipment to the L or R socket on the television, then press  I/II to select Dual I for left mono or Dual II for right mono.

To select the Input, press  until **AV-4** is highlighted in **SOURCE** menu as described on [page 26](#). The television will automatically sense the type of signal.

*Please always refer to the owner's manual of the equipment to be connected for full details.*

**DIGITAL COAXIAL:** The digital TV (DTV) audio output is always present even when other input modes are selected.

## Digital Tuning

Before switching on the television put your decoder and media recorder to **Standby** if they are connected and ensure the aerial is connected to your television. To set up the television use the buttons on the remote control as detailed on [page 4](#).

- 1 Connect the mains plug and switch the TV into standby using the rear Power button. Press any numbered or standby button on the remote control, the **Local Options** screen will appear. This screen will appear the first time that the television is switched on and each time the television is reset.



- 2 Select your **Country** by using < or > buttons. Use < to move down through the list.

Set your **Language** and **Audio Language** out of the options available.

You can also set **Subtitles** OFF, as well as specifying the subtitle language.

When completed, press **OK** to start tuning.

After auto-tuning has completed, you may find the time is not correct. In this case, you can adjust the time by using < and > buttons to highlight **Local Time Setting**, and < and > buttons to set the correct time.

- 3 The Auto tuning screen will appear and the television will start to search for available stations.

The progress bar will move along the line.



**You must allow the television to complete the search.**

When the search is complete the Auto tuning screen will display the total number of services found.



- 4 Use < or > to move through the list to select a programme then press **OK** to view.

## Digital programme sorting continued, programme sorting , auto tuning, manual tuning

### Programme sorting

- 1 The station order may be changed, for instance if the picture is unclear or the signal is weak. Press **MENU**, the **SETUP MENU** will appear on the screen.
- 2 Use **↙** to move down through the list and highlight **Programmes**. Press **OK**.



- 3 With the list of stations now showing use **↖** or **↙** to highlight the station you want to move and press **>**. The selected station will be moved to the right of the screen.

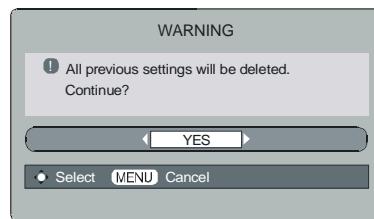


- 4 Use **↖** or **↙** to move through the list to your preferred position. As you do so the other stations will move to make room.
- 5 Press **<** to store your move.  
Repeat as necessary, then press **EXIT**.

### Auto tuning

**Auto tuning** will completely re-tune the television. All current programme sorting and settings, i.e. favourites and locked programmes, will be lost.

- 1 Select the **SETUP MENU** and use **↙** to highlight the **Auto tuning**. Press **OK**.
- 2 A screen will appear warning that previous digital programmes and settings will be deleted. Press **OK** to continue with the **Auto tuning**.



The television will start to search for all available stations. You must allow the television to complete the search. When the search is complete the **Auto tuning** screen will display the total number of services found.

### Manual tuning

*The feature is available for service engineers or can be used for direct channel entry if the multiplex channel is known.*

- 1 Select **Manual Tuning** from the **SETUP MENU** and press **OK**.
- 2 Enter the multiplex number using the number buttons. The television will automatically search for that multiplex.  
When the multiplex is found any channels not currently on the programme list will be added and the programme information at the top of the screen will be updated.
- 3 Repeat as necessary. Press **EXIT** to finish. **Note:** Press **⊖** to select between ATV/DTV.

## Analogue Tuning and programme sorting

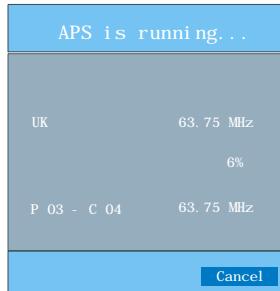
Before switching on the television put your decoder and media recorder to **Standby** if they are connected and ensure the aerial is connected to your television. To set up the television use the buttons on the remote control as detailed on [page 4](#).

1 When ATV (Analogue TV) is selected for the first time; the A.P.S. screen will appear.



2 Use the Up or Down button to highlight the **Language** and **Country** items. Press the Left or Right button to adjust the highlighted item. Then press the RED or OK button to start tuning.

- The television will start to search for available stations.



**You must allow the television to complete the search.**  
When the search is complete the television will automatically select programme position 1. This may not be a clear picture or the signal may be weak, so the station order can be changed using **program table** which will appear on the screen.

Program Table

P01	BBC 1	P11	S 18
P02	C 04	P12	S 29
P03	C 05	P13	S 31
P04	BBC 1	P14	S 33
P05	CH 4	P15	S 34
P06	BBC 2	P16	S 35
P07	C 04	P17	S 36
P08	C 07	P18	S 37
P09	C 12	P19	S 40
P10	C 15	P20	C 21

4 With the list of stations now showing use the Up or Down button to highlight the station you want to move and press the **GREEN** button.

5 Use the Up or Down button to move through the list to the preferred position, as you do so the other stations will move to make room, then press the **GREEN** button again. The selected station will be moved to the new position.

Repeat as necessary, then press **EXIT**.

If the television cannot be connected to a media recorder/decoder with a SCART lead or if a station on another **system** is required, a programme position can be manually tuned in.

## Manual tuning

The television can be tuned-in manually using **INSTALL**. For example: if the television cannot be connected to a media recorder/decoder with a SCART lead or to tune-in a station on another **System**.

### Manual tuning

*To allocate a programme position on the television for a decoder and media recorder: turn the decoder on, insert a pre-recorded film into the media recorder and press PLAY, then manually tune.*

- 1 Press **MENU** and using the Left or Right button select **INSTALL** menu.
- 2 Using the Down button select **Program** and key in the programme position to be tuned with the number buttons, we suggest *Programme 0* for a media recorder.



- 3 Use the Down button to select **Search** then press the Left or Right button to search. The television will begin searching for channels.
- 4 Each signal will show on the television, if it is not your media recorder press the Left or Right button to restart the search.
- 5 When your media recorder signal is found, save the selection by pressing the Down button until **Store Program** is highlighted, then press the Left/Right or OK button to save.  
Repeat for each *programme position* to be tuned then press **EXIT** to finish.

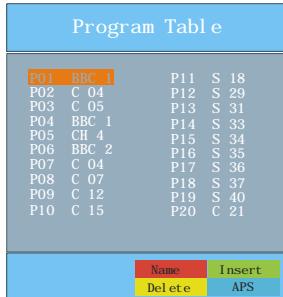
**Note:** Press  to select between **ATV** or **DTV**.

## Analogue APS, choosing a language

### APS (AUTOMATIC PROGRAMMING SYSTEM)

When the **APS (AUTOMATIC PROGRAMMING SYSTEM)** feature is selected all channels and settings will be lost, the television will return to factory settings and then re-tune.

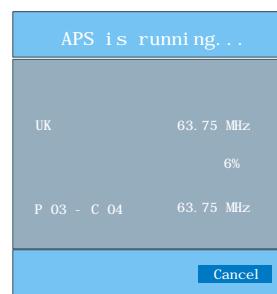
- 1 Press **MENU** and using the Left or Right button select **INSTALL** menu. By using Up or Down buttons, select **PROGRAM TABLE** and press Right button.



- 2 The **PROGRAM** screen will appear on the screen. Press the **BLUE** button to start **APS**.



- 3 Press the Left or Right button to set the country.
- 4 Press the **BLUE** button to cancel **APS** or the **RED** or **OK** button to start.



### You must allow the television to complete the search.

When the search is complete the television will automatically select programme position 1. This may not be a clear picture or the signal may be weak, so the station order can be changed using **program table** which will appear on the screen.

- 5 Press **EXIT** to finish.

### Choosing a language

The **Language** feature allows the menus to be shown in a variety of languages.

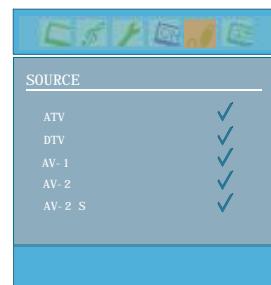
- 1 Press **MENU** and using the Left or Right button select **Feature** menu.
- 2 Press the Down button to highlight **Language**, then use the Left or Right button to select the required language.



### Selecting programme positions

To select a programme position use the numbered buttons on the remote control. Programme positions can also be selected using **P▲** and **P▼**. Press **INFO** to display the on-screen information i.e. programme position, stereo/mono signal and picture format. To revert to the previous programme position press **PREV**.

The Up and Down buttons can be used to navigate through the sources in **SOURCE** menu, too.



## Analogue general controls, time display, stereo/bilingual transmissions, **child lock**

### The Time Display

*The time display facility allows the current (text service) time to be seen on the television screen.*

Press  whilst watching a normal television broadcast to see a time display from the broadcaster.

### Stereo and Bilingual transmissions

*If stereo or dual language broadcasts are transmitted the word Stereo or Dual will appear on the screen each time programme positions are changed, disappearing after a few seconds. If the broadcast is not in stereo the word Mono will appear.*

**Stereo...** Press  to select **Stereo** or **Mono**. **Bilingual...** Bilingual transmissions are rare. If they are transmitted the word **Dual** will display. Choose the required programme number and if the word **Dual** appears press  to select **Dual 1** or **Dual 2**.

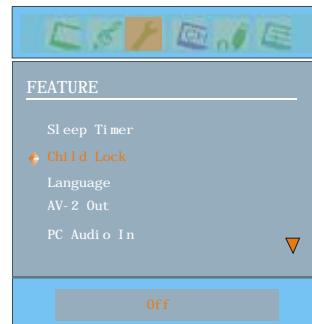
*In digital mode, a list of languages and audio formats may be shown briefly (mono, stereo, multi-channel). Use the  button to select between them.*

### Child lock

**CHILD LOCK** disables the buttons on the top of the television. All buttons on the remote control can still be used.



② **Analogue TV** menus will appear on the screen. Press Left or Right button select the **FEATURE** menu. Press the Down button to choose **Child Lock** and press the Left or Right button to turn it on or off.

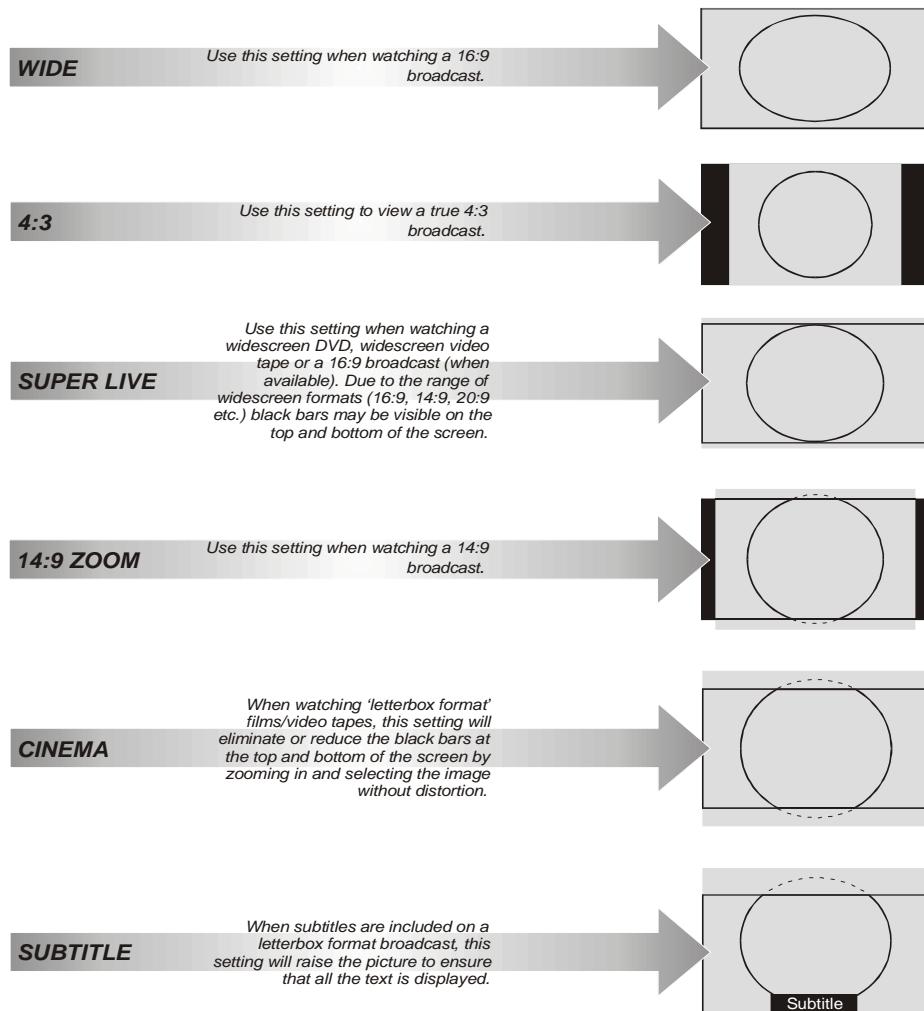


③ When **Child Lock** is selected, a reminder will appear when any of the top panel buttons are pressed. Once the television has been switched off it can ONLY be brought out of standby using the remote control.

## Picture format

Depending on the type of broadcast being transmitted, programmes can be viewed in a number of formats. Press the  button repeatedly to select between **Auto**, **Wide**, **4:3**, **Super Live**, **14:9 Zoom**, **Cinema** or **Subtitle**.

When **Auto** is selected the format being displayed is determined by the picture being broadcast.



Using the special functions to change the size of the displayed image (i.e. changing the height/width ratio) for the purposes of public display or commercial gain may infringe on copyright laws.

# Analogue Picture controls — picture mode, hue, colour temperature, noise reduction, film mode

## Picture mode

*This television offers the choice of personalising the picture style. Press  $\rightarrow\leftarrow$  to view the different styles available: CINEMA, DYNAMIC and NATURAL.*

- 1 Select the PICTURE option from the main menu.



- 2 Press the Down button to highlight **Mode** and then Right button to select a picture style.
- 3 Using the Up and Down buttons select **Contrast**, **Brightness**, **Sharpness** and **Colour**, then Left and Right buttons to adjust to suit personal taste.
- 4 Press the Down button and select **Reset** to reset the adjustments to factory default settings.

## Hue

*This item is displayed in PICTURE menu when the TV receives an NTSC signal.*

- 1 In the PICTURE menu press the Down button until **Hue** is highlighted.
- 2 Press the Left and Right buttons to adjust **Hue** to suit your preference.



## Colour Temperature

*Colour Temperature increases the 'warmth' or 'coolness' of a picture by increasing the red or blue tint.*

- 1 In the PICTURE menu press the Down button until **Colour Temp.** is highlighted.
- 2 Press the Left and Right buttons to select between **NORMAL**, **WARM** and **COOL** to suit your preference.

## Noise Reduction

*Noise Reduction 'softens' the screen representation of a weak signal to reduce the noise effect.*

- 1 In the PICTURE menu press the Down button until **Noise Reduction** is highlighted.
- 2 Press the Left and Right buttons to select between **Low**, **Medium**, **High** and **Off**. The differences may not always be noticeable.

## Film Mode

*Films are recorded at a different number of frames per second to normal television programmes. Turn this feature on when you are watching films to see the fast motion scenes clearly.*

- 1 In the PICTURE menu press the Down button until **Film Mode** is highlighted.
- 2 Press the Left or Right button to select **On** or **Off**.  
This function is visible in ATV modes only.

## Analogue Picture controls continued — 3D comb, blue background, PIP, PAP

### 3D Comb

**3D Comb** is used to improve colour transitions and colour quality of pictures.

- 1 In the **PICTURE** menu press the Down button until **3D Comb** is highlighted.
- 2 Press the Left or Right button to turn it **On** or **Off**. This function is visible in ATV modes only.

### Blue Background

When **Blue Background** is selected the screen will turn blue and the sound will be muted when no signal is received. A five minute countdown will be visible on screen. If no signal is received during the five minute period the television will switch to standby when the countdown finishes.

- 1 Select the **FEATURE** option from the main menu.

This function is visible in ATV modes only.



- 2 Using the Down button select **Blue Background**, then press the Left or Right button to select.
- 3 Press **EXIT** to finish.

### Picture-in-Picture (PIP), Picture-and-Picture (PAP)

**NOTE:** This feature only allows PC mode plus another signal/input.

Press the **PIP** button to switch to PIP mode.

At PIP Mode, a small picture (PIP picture) is displayed on the main picture. There are **3 sizes** and **6 positions** available for the PIP window. You can use **PIP** button to change the **PIP position**. Aspect Ratio of the PIP window is fixed and **4:3**.

When PIP Mode is entered, the default active window is PIP window and the active window is indicated by a **red** frame around it. The active window can be changed by pressing the **<** or **>** button. The status info OSD belongs to active window. The place of the status OSDs are same for both windows.

Press the **PIP** button twice to switch to PAP mode.

At PAP Mode, two pictures with equal sizes are displayed on the screen. Aspect Ratios of the windows are fixed.

When you switch to PAP Mode, Main window in PIP Mode is displayed on the right side of the screen. The active window can be changed by pressing the **<** or **>** button

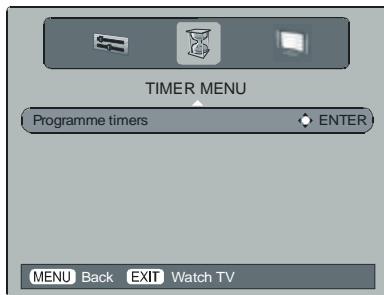
## Timers

**Remember:** When viewing in **digital** mode if **analogue** is required press  **Source menu** appears on the screen and select **ATV/DTV**. To return to **digital** viewing, select **ATV/DTV** in **Source menu**.

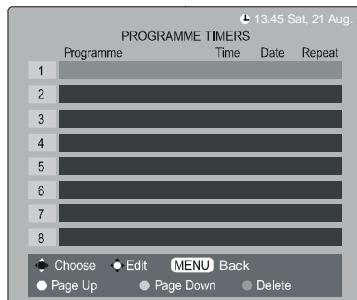
### Programme timers - digital

*This feature sets the television timers to record programmes. The "Repeat" feature can be set to record "daily" and "weekly" to ensure a series of programmes are recorded.*

**1** Press **MENU** and  or  to select the **TIMER MENU**.

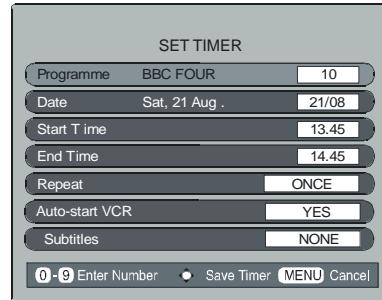


**2** Press  to select **Programme Timers**, then press **OK** to select. Your TV must be on or in standby mode when a programme timer is due to start.



**3** Press  to select the first programme to be recorded, then press **OK**. The **SET TIMER** menu will now appear.

**4** Press  or  to go through the list adding the details of the programme to be recorded by using the number buttons and  or  to make selections.



**5** When all the details have been entered press **OK** to save the timer.

**Please Note:** When a timed programme is about the start recording, an information screen will appear, the television will then change automatically to the required channel. Cancelling this will also cancel the recording.

### Sleep timer - analogue

*The television can be set to turn itself OFF after a certain time.*

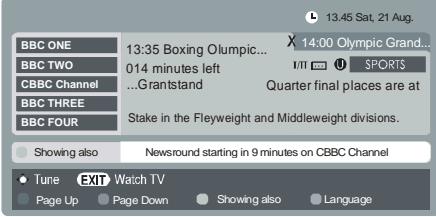
**1** Press **MENU** and  or  to select **Feature**. Then press  or  or **OK** to enter the menu.

**2** To set the number of minutes in which the television will turn off press  or . This will increase or decrease in steps of 10 minutes.



## Digital Programme Guide and on-screen information

When viewing in digital mode the on-screen information and guide give access to programme details for all available channels. Recording can also be set from **both** the information screen and guide.

Information	Guide
<p><b>1</b> Select information by pressing <b>i+</b>, the information screen will appear giving details of the channel and programme currently being viewed.</p> 	<p><b>1</b> Select the on-screen guide by pressing <b>GUIDE</b>, the guide screen will appear highlighting details of the channel and programme currently being viewed. This may take a few moments to appear.</p> 
<p><b>2</b> To see details of any of the other channels currently available, press <b>↖</b> or <b>↘</b> to scroll up/down the list. As the channel is selected details of the programme currently being broadcast will appear.</p> <p><b>3</b> To record the following programme, with the information guide showing, <b>press OK</b>.</p> 	<p><b>2</b> Press <b>↖</b> or <b>↘</b> for information of other programmes scheduled for the channel selected.</p> <p><b>3</b> For details of other channels currently available, press <b>↖</b> or <b>↘</b> to scroll up and down the channel list. As the channel is selected details of the programme currently being broadcast will appear, then press <b>↖</b> or <b>↘</b>.</p> <p><b>4</b> Press the <b>i+</b> button for more information about the currently highlighted programme.</p> <p><b>5</b> Press <b>EXIT</b> button to return to original programme.</p>
<p><b>5</b> Press <b>↖</b> or <b>↘</b> to go through the list adding details of the programme to be recorded by using the number buttons and <b>↖</b> or <b>↘</b> to make selections. Press <b>OK</b> to save.</p>	

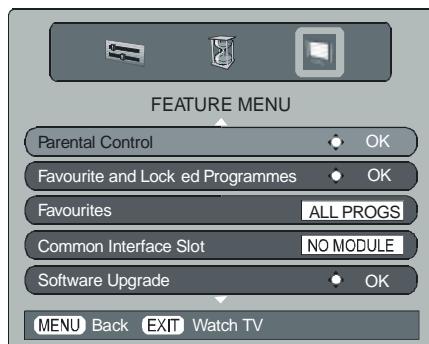
## Digital parental controls - setting the pin, mode

There are a number of parental controls which can block specific channels being viewed, and which can only be accessed with a security PIN code when in digital mode.

Once you've entered the PIN code, you do not need to enter it again until next time you power-on TV. To restore PIN code entry again (e.g. for parental controls on locked programmes) press STANDBY twice.

### Setting the PIN

- 1 Press **MENU** and **>** to select **FEATURE MENU**.



- 2 Use **▽** to select **Parental Control** then press **OK**.

- 3 Press **▽** to highlight **Change Pin** then press **OK**.



- 4 Using the number buttons enter a four digit number, when these have been entered the screen will ask you to confirm them by entering them again.



- 5 Press **MENU** to go back to the Parental Control screen. The PIN number is now set.

### Mode

*This feature locks various menus to prevent the television being retuned or the settings being overridden.*

- 1 In the **PARENTAL CONTROL** menu press **▽** to select **Mode**.



- 2 Use **▽** or **▶** to choose between **ON**, **OFF**, **LOCK MENU** and **LOCK INSTALL**.

When menus that have been locked are now selected, they will only become available when the PIN is entered.

**ON:** Parental control settings are enabled (PIN code is required for programme locks and censorship).

**LOCK INSTALL:** As ON mode above, except that installation features such as auto-tuning and programme sorting are also locked (PIN code is required).

**LOCK MENU:** As ON mode, except all menu functions are locked (PIN code is required).

**OFF:** All lock settings are disabled (no PIN code is required).

# Digital settings - favourite programmes, locked programmes, encrypted programmes

## Selecting Favourite Programmes

**Favourite Programmes** creates a list of the digital channels that are watched most. Four lists can be created, this can be a mixture of television, text and radio channels.

- From the **FEATURE MENU** press **▼** to select **Favourite and Locked Programmes** and press **OK**.



- Use **▲** or **▼** to go through the list of channels pressing **OK** to select the ones required, a tick will appear in the box.
- Press **▶** to select List 2. Follow the same procedure to make the selection. When all favourites have been selected press **MENU** to return to the **FEATURE menu**.
- Use **▼** to highlight **Favourites** and **<** or **>** to select between **TV, RADIO, FAV-1, FAV-2, FAV-3, FAV-4, ALL PROGS**. The number of favourites available depends on how many lists have been created.



- Press **EXIT**.

Using the **▲ P ▼** buttons will only access those channels in **Favourite List 1** when **FAV-1** is selected.

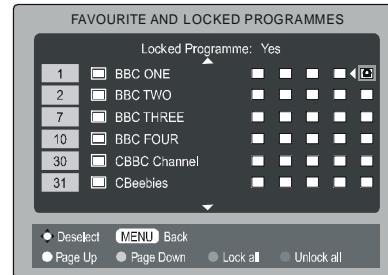
## Locking Programmes

**Locked programmes** stops the viewing of selected **digital** channels, which can only be accessed by entering the PIN.

- From the **FEATURE MENU** press **▼** to select **Favourite and Locked Programmes**.

- Press **▶** repeatedly to select the **Locked Programme** list.

- Use **▲** or **▼** to go through the list of channels pressing **OK** to select the required, a padlock will appear in the box.



Press **EXIT** to finish.

- When any of the channels in the **Locked Programme** list are now selected the PIN must be entered before they can be accessed.

The lock only functions after the set is returned to standby and switched out of standby again.

## Encrypted Programmes

**Selecting Encrypted Programmes** allows all encrypted programmes to be shown in the programme list even if they are not available to select.

- In the **FEATURE MENU** press **▲** or **▼** to select **Encrypted Programmes**.

- Use **<** or **>** to select **ON** or **OFF**.

## Digital settings continued - country, language and audio languages

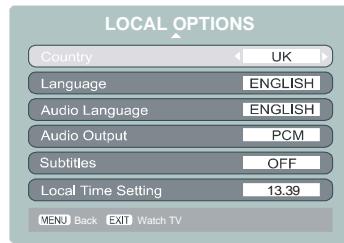
### Country

*This feature allows you to select a country option for the APS installation process.*

- 1 From the **SETUP MENU** press **▽** to select **LOCAL OPTIONS**.



- 2 Press **OK**, then use **↖** or **↘** to highlight the **Country**.
- 3 Use **<** or **>** to set your country. There are six options to select.



### Language

*This feature will define the Menu language selection.*

- 1 From the **LOCAL OPTIONS** menu press **▽** to select **Language** item.



- 2 Use **<** or **>** to set your language.

### Audio Languages

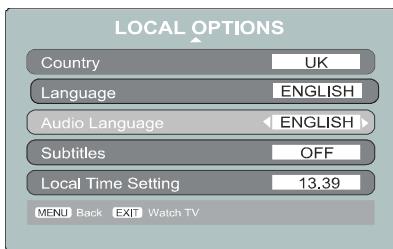
*This feature allows a programme or film to be viewed with a choice of soundtrack language, provided they are currently being broadcast.*

- 1 From the **SETUP MENU** press **▽** to select **LOCAL OPTIONS**.



- 2 Press **OK**, then use **↖** or **↘** to highlight the **Audio Language**.
- 3 Use **<** or **>** to select **Audio Language**.

## Digital settings continued - audio languages, subtitles, audio output, reset tv, common interface, local time settings



**Note:** If more than one soundtrack is available, use **○ I/II** button to select between them. This option is dependent on transmission received.

### Subtitles

*This feature will show subtitles on the bottom of the screen in the selected language provided they are being broadcast.*

- 1 From the LOCAL OPTIONS menu press **▽** to select **Subtitles**.
- 2 Use **<** or **>** to make a selection.

### Local Time Setting

- 1 From the LOCAL OPTIONS menu press **▽** to select Local Time Setting.
- 2 To adjust Local Time Setting, use **<** or **>** buttons.

### Audio Output (Digital Coaxial)

- 1 From the LOCAL OPTIONS menu press **▽** to select **Audio Output**.
- 2 Use **<** or **>** to set Audio Output to PCM or Bitstream. This is dependent on transmission received.

*Note: When Bitstream is selected, main TV speakers will be muted and changing channels will revert the set back to the Audio Output selection set in Local Options.*

### Reset TV

*Selecting Reset TV will delete all stored digital and analogue channels and settings. The television will return to factory settings and then auto tune.*

- 1 Press **MENU** and then press **▽** until **Reset TV** is highlighted.
- 2 Press **OK** to select. A screen will appear warning that all previous settings will be deleted, press **OK** to continue.

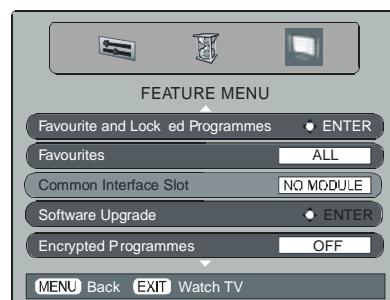
The digital welcome screen will appear, press **OK** to continue, the television will then auto tune.

*Retune also analogue channels as described on page 11.*

### Common Interface

*The Common Interface Slot, situated on the back of the television, enables the insertion of a CAM (Conditional Access Module) and card. These are purchased from a service provider and allow additional Pay per View broadcasts to be viewed.*

- 1 Insert the CAM and card into the Common Interface slot, following the instructions provided with the CAM. A box will appear on screen to confirm that the CAM is loaded.
- 2 From the FEATURE MENU press **▲** or **▽** to select **Common Interface Slot**.



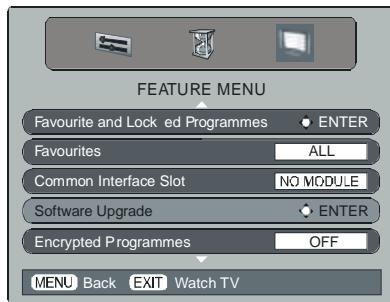
- 3 Details of the CAM should now be available. Use **OK** to select it.

## Digital settings continued - version, auto upgrade and searching for new software

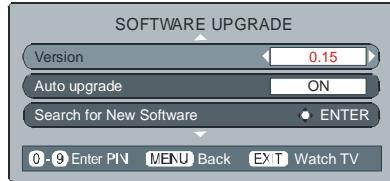
### Version

*This feature can be used to check the version of software currently installed.*

- 1 From the **FEATURE MENU** press **▼** to select **Software Upgrade**.



- 2 Press **▲** or **▼** to select **Version**. Use **<** or **>** to select. When the software has been updated there will be a choice of two versions available. Press **OK** to select.



### Auto Upgrade

*If **Auto upgrade** is selected the software will automatically update as each version becomes available, provided the television is on or in standby. If the television is on, a screen prompt will appear showing the software download taking place.*

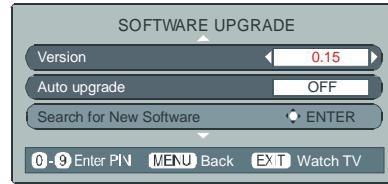
- 1 From the **SOFTWARE UPGRADE** menu press **▼** to select **Auto Upgrade**.
- 2 Use **<** or **>** to select **ON** or **OFF**.

*Note: During the Auto Upgrade, the two green LEDs will light on the front of the TV.*

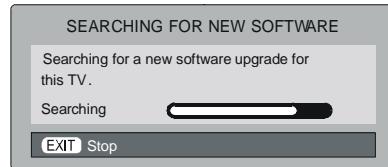
### Searching for new software

*If preferred, software upgrades can be searched for manually using **Search For New Software**.*

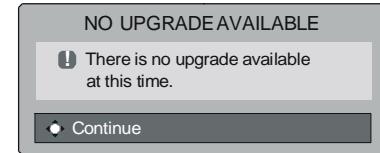
- 1 In the **SOFTWARE UPGRADE** menu press **▲** or **▼** to select **Search For New Software**.



- 2 Press **OK**. The television will automatically start searching for a software upgrade, the progress bar will move along the line.



If an upgrade is found the television will automatically start downloading, if not a screen will appear stating that an upgrade is unavailable.



This can take several minutes.

## Analogue sound controls — volume, sound mute, equalizer, **balance**

### Sound Controls

#### Volume

Press **+** or **-** to adjust the volume.

#### Sound Mute

Press **MUTE** on the remote control once to turn the sound off and again to cancel.

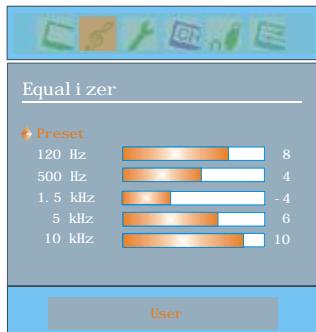
### Equalizer

*The Equalizer feature has a number of sound settings to select from; Flat, Classic, Pop, Rock, Jazz and User. These settings are all preset and cannot be altered. The User setting can be altered and stored to suit personal preference.*

- 1 Select the **SOUND** option from the main menu.



- 2 Use the Down button to highlight **Equalizer** then press the Left or Right button to select **preset** mode.



- 3 Using the Up and Down buttons select a frequency and then Left and Right buttons to adjust to suit personal taste. Note that user mode settings are stored automatically.

- 4 Press **EXIT** to return to TV.

### Sound Balance

- 1 Press the Right button to select the **SOUND** option from the main menu.
- 2 Press the Down button to highlight **Balance** and Left or Right button to adjust the settings.
- 3 Press **EXIT** to finish.

## Analogue sound controls continued —

### headphone, AVL, effect, dynamic bass

#### Headphone

The **Headphone** feature allows you to alter the sound from headphones when connected to the socket on the side of the television.

- 1 Select the **SOUND** option from the main menu.



- 2 Use the Down button to highlight **Headphone** then press the Left or Right button to select.



- 3 Using the Up and Down buttons select an option and then Left and Right buttons to adjust to suit personal taste.

Press **EXIT** to finish.

#### AVL - Auto Volume Limiter

**AVL** limits high volume levels and prevents the extreme changes in volume that can occur when channels are changed or a programme switches to a commercial.

- 1 In the **SOUND** menu press the Down button to highlight **AVL**.
- 2 Use the Left or Right button to turn **AVL** on or off.

#### Effect

**Effect** creates a synthetic sound effect for movies and television shows recorded in mono.

- 1 In the **SOUND** menu press the Down button to highlight **Effect**.
- 2 Use the Left or Right button to turn **Effect** on or off.

#### Dynamic Bass

**Dynamic Bass** reinforces the bass sound and creates a more powerful sound.

- 1 Select the **SOUND** option from the main menu.
- 2 Press the Down button to highlight **Dynamic Bass**.
- 3 Use the Left or Right button to select **Dynamic Bass** Off, Low or High

## Input selection, AV connections

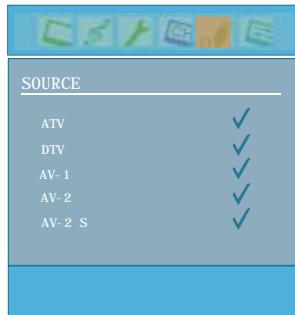
Settings for the INPUT and OUTPUT sockets so that the television recognises connected equipment. See [page 5 and 6](#) for a clear view of the back connection recommendations and [page 7](#) for the side connections.

Most media recorders and decoders send a signal through the SCART lead to switch the television to the correct *Input* socket. Alternatively press the external source selection button  to select the source from the menu displayed.

### Input selection

Use the *Input Selection* if the television does not switch over automatically.

- 1 From the **SOURCE** menu, press Down button to highlight a source.



Available source options are: ATV, DTV, AV-1, AV-2, AV-2S, YPbPr, AV-4, AV-4S, HDMI or PC RGB.

- 2 Pressing Right button will switch the TV to the selected mode.

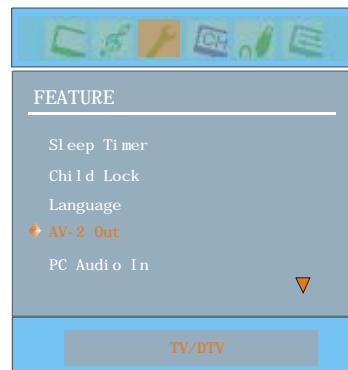
**NOTE:** You can mark desired source options by pressing **OK** button. Therefore, when  button is pressed, only the marked source options will be available.

### OUTPUT signal selection for AV-2 (Scart 2)

This enables selection of the source to output from AV-2. For example, to record transmissions in stereo from a stereo decoder - connect a stereo decoder to **AV-1** and stereo media recorder to **AV-2**, then select **AV-1** as the **AV-2 Out**. The signal received through SCART 1 will output directly through SCART 2.

**NOTE:** If the currently watched source is analogue TV, a connected device displays analogue TV source as well. If this source is set to digital mode, connected device displays digital source. In order to avail this function, AV-2 Output should be set to TV/DTV.

- 1 From the **FEATURE** menu, press the Down button to select **AV-2 Out**.



Use the Left or Right button to change AV-2 Out option to:

**TV/DTV** = The last television programme selection.

**AV-1** = The picture from equipment connected to SCART 1.

**YPbPr Audio** = Only the sound from equipment connected to YPbPr (Component) sockets.

**AV4** = The picture from equipment connected to the side input sockets.

**PC Audio** = Only the sound from PC.

- The Digital Coaxial RCA out always provides digital sound output.

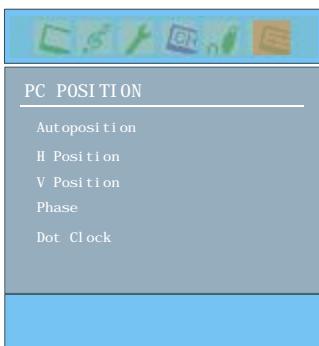
## PC Mode

PC Picture Position and PC Picture menus are described below. The other menu items are identical to TV mode menus. Please see the previous sections. For connections please refer to [page 5](#).

### Autoposition

If you shift the picture horizontally or vertically to an unwanted position, use this item to put the picture into correct place automatically.

- 1 Select the **PC POSITION** option from the main menu.



- 2 Press the Down button to highlight **Autoposition** and then press the Right or OK button.

### H Position

**H (Horizontal) Position** shifts the image horizontally to right hand side or left hand side of the screen.

- 1 In the **PC POSITION** menu press the Down button until **H Position** is highlighted.
- 2 Press the Left or Right button to adjust the value.

### V Position

**V (Vertical) Position** shifts the image vertically towards the top or bottom of the screen.

- 1 In the **PC POSITION** menu press the Down button until **V Position** is highlighted.
- 2 Press the Left or Right button to adjust the value.

### Dot Clock

**Dot Clock** adjustment corrects interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts.

- 1 In the **PC POSITION** menu press the Down button until **Dot Clock** is highlighted.
- 2 Press the Left or Right button to adjust the value.

### Phase

Depending on the resolution and scan frequency that you input to the TV Set, you may see a hazy or noisy picture on the screen. In such a case you can use this item to get a clear picture by trial and error method.

- 1 In the **PC POSITION** menu press the Down button until **Phase** is highlighted.
- 2 Press the Left or Right button to adjust the value.

### PC Picture controls



Contrast, Brightness and Colour Temperature adjustments in this menu are identical to adjustments defined in TV picture menu.

When Colour Temp is Manual, you can also adjust the R, G, B items. R, G and B adjust the TV image colour in PC **RGB** mode. You can change the TV colour to your desired colour: R (Red), G (Green), B (Blue)

Select **Reset** and press **OK** button to reset the adjustments to factory default settings.

This television has a multi-page text memory, which takes a few moments to load.

## PC input typical display modes

Mode	Resolution		Frequency	
	Horizontal	Vertical	Hor.(kHz)	Ver.(Hz)
1	640	480	31,5	60
2	640	480	37,9	72
3	640	480	37,5	75
4	800	600	35,2	56
5	800	600	37,9	60
6	800	600	48,1	72
7	800	600	46,9	75
8	1024	768	48,4	60
9	1024	768	56,5	70
10	1024	768	60	75
11	1280	1024	64	60
12	1280	768	47,8	60
13	1360	768	47,7	60

# Digital and Analogue text services

## Digital Text

The digital text services are the up to date way of viewing service information.

These services are free to anyone using a digital television, however; they are not available for all digital stations and are dependent on the broadcaster.

Simply using the coloured buttons on the remote control and  $\wedge$ ,  $\vee$ ,  $<$  and  $>$  make navigating quick and easy.

## Analogue Text

*Before using the text services the required language region must be chosen.*

**1** Select **Teletext Language** from the **FEATURE** menu.

**2** Press the Left or Right button to choose the required language region.



**3** After the teletext language is selected, press **EXIT**.

### The Text $\text{[ } \text{/ } \text{ ] } \text{/ } \text{□}$ button:

To view text services press  $\text{[ } \text{/ } \text{ ] }$ . Press again to superimpose text over a normal broadcast picture. Press again to return to normal viewing. Programmes cannot be changed until text is cancelled.

The first text page shown will be the *initial* page.

Any text page can be accessed by entering the 3 digit page number using the numbered buttons, pressing the coloured buttons or pressing  $\text{P} \blacktriangle$  to advance to the next page and  $\text{P} \blacktriangledown$  to go back to the previous page.

Four coloured titles will appear at the base of the screen. To access one of the four given subjects, press the relevant coloured button on the remote control.

For further information on your particular text system(s),

see the broadcast text index page or, consult your local Toshiba dealer.

Below is a guide to the functions of the remote control text buttons.

### $\text{[ } \text{ ] }$ To display an initial page:

Press  $\text{[ } \text{ ] }$  to access an initial page. The one displayed is dependant on the broadcaster.

### $\text{[ } \text{ ] }$ To access sub-pages:

If a text page has sub-pages, press  $\text{[ } \text{ ] }$  and enter the subpage numbers 01,02,03 etc. which can be selected using " $\blacktriangleleft$ " / " $\blacktriangleright$ " buttons at the bottom of the text page under the coloured links

### $\text{[ } \text{ ] }$ To reveal concealed text:

To discover the solutions on quiz and joke pages press the  $\text{[ } \text{ ] }$  button.

### $\text{[ } \text{ ] }$ To hold a wanted page:

At times it is convenient to hold a page of text. Press  $\text{[ } \text{ ] }$  and  $\text{[ } \text{ ] }$  will appear in the top left of the screen. The page will be held on screen until the button is pressed again.

### $\text{[ } \text{ ] }$ To enlarge the text display size:

Press  $\text{[ } \text{ ] }$  once to enlarge the top half of the page, press again to enlarge the bottom half of the page. Press again to revert to normal size.

### To select a page whilst viewing a normal page:

Enter the page number then press  $\text{[ } \text{ ] }$ , a normal picture will be displayed. The television will indicate when the page is present by displaying the page number at the top of the screen. Press  $\text{[ } \text{ ] }$  to view the page.

To display news flashes:

Select the news flash page for the chosen text service (see the index page of text service). Press  $\text{[ } \text{ ] }$ . The news flashes will be displayed as and when they are broadcast. Press  $\text{[ } \text{ ] }$  again to cancel the display.

**The new flash page must be cancelled before changing programmes.**

## Questions and Answers

Below are the answers to some of the most common queries. For more information, go to [www.toshiba.co.uk](http://www.toshiba.co.uk)

### Q Why is there no sound or picture?

A Check the mains switch is on and check all connections.  
Check the television is not in standby mode.

### Q Why is there a picture but no sound?

A Check the volume has not been turned down or that sound mute has not been selected.

### Q What can cause a poor picture?

A Interference or a weak signal. Try a different television station. **FINE TUNING** may help.

### Q Why doesn't the video/DVD being played show on screen?

A Make sure the VCR or DVD player is connected to the television as shown on [page 5](#), then select the correct input by pressing **•**.

### Q Why is the VCR/DVD picture in black and white?

A Check the correct input has been chosen, **S-VIDEO** or **AV**. See **AV connections**.

### Q Why is there a good video picture but no sound?

A Check the SCART lead connection.

### Q Why doesn't the remote control work?

A Check the batteries aren't dead or inserted incorrectly.

### Q Why don't the controls on the top of the television work?

A Check that **CHILD LOCK** is not selected.

### Q Why is the sound only coming from one speaker when stereo sound is selected?

A Check that the balance in the **SOUND** menu hasn't been set to one side.

### Q Why are there problems with analogue text service?

A Good performance of the analogue text depends on a good strong broadcast signal. This normally requires a roof or loft aerial. If the text is unreadable or garbled, check the aerial. Go to the **main index** page of the analogue text service and look for the **User Guide**.

### Q Why is the time wrong?

**Please check you have selected the correct country. Go to the **LOCAL OPTIONS** menu and check the **COUNTRY** setting ([on page 21](#)). Otherwise, you can correct the time using the **LOCAL TIME SETTING** ([see page 22](#)).**

### Cleaning the screen and cabinet...

Turn off the power, clean the screen and cabinet with a soft, dry cloth. We recommend that you **do not** use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.

### Disposal...

The following information is only for EU member states. The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



## Questions and Answers

Below are the answers to some of the most common queries. For more information go to [www.toshiba.co.uk](http://www.toshiba.co.uk)

**Q** *Why is the DTV main menu unavailable?*

**A** Analogue mode (ATV) is selected. Press to select DTV.

**Q** *Why is the digital channel locked?*

**A** The channel has been selected in the locked programmes list, see **page 21**.

**Q** *Why can only certain digital channels be viewed?*

**A** Favourite Mode has been set to On. See **page 21**.

**Q** *Why are some encrypted digital channels unavailable?*

**A** Your subscription needs upgrading. Contact your service provider.

**Q** *Why is the soundtrack in English when a different audio language has been selected?*

**A** The programme is currently being broadcast with an English soundtrack only.

**Q** *What can be done if the PIN number has been forgotten?*

**A** Use the master pin code of **1276**, then change to a number of your choice.  
Ensure that no-one else can use the Master PIN by removing the Owners manual.

**Q** *Why when digital subtitles have been selected are they not showing on the screen?*

**A** Subtitles are not currently being transmitted by the broadcaster.

**Q** *Why is there no digital text service?*

**A** The digital programme being viewed is not broadcasting digital text. Try another digital programme.

**Q** *Why does the Green Active standby LED sometimes take longer to go out?*

**A** When put into standby the television's active standby will automatically search all available channels for downloads, provided Automatic Download is enabled. The time it takes to do this may vary.

**Q** *Why do I have black and grey bars in a 4:3 picture?*

**A** This is normal operation. The grey bars on the left and right of the picture are generated by the TV set. The black bars on the top and bottom of the screen occur during a 16:9 broadcast.

## Notes

For your own records

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## Notes

For your own records

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# Specifications and accessories

## 20W330DG

<b>Broadcast Systems / Channels</b>			<b>Programme Positions</b>	100
PAL I			<b>Stereo</b>	Nicam, German 2 carrier system
PAL-B/G			<b>Visible Screen Size</b> (approx.)	20" diagonal
SECAM-L			<b>Display</b>	16:9
SECAM-D/K			<b>Screen Resolution</b>	1360x768
<b>DVB-T Broadcast Systems</b>			<b>Sound Output</b> (at 10% distortion)	2 x 5W R M S
country	VHF	UHF	<b>Power Consumption</b>	80W (max)
UK	-	21-69	<b>Standby</b> (approx.)	<1.0W
France	05-12	21-69	<b>Dimensions</b> (approx.)	535mm (W) 426mm(H) 121mm(D) (without stand) 535mm (W) 480mm(H) 229mm(D) (with stand)
Germany	05-12	21-69	<b>Weight</b> (approx.)	7,6 Kg (with stand) 6,0 Kg (without stand)
	05-12 07		<b>Headphone Socket</b>	3.5mm stereo
Italy	excluded	21-69	<b>Accessories</b>	Remote control 2 batteries (AAA, IEC R03 1.5V) P Clip
Spain	-	21-69		
Switzerland	05-12	21-69		
Sweden	05-12	21-69		
Finland	05-12	21-69		
Greece	05-12	21-69		
Austria	05-12	21-69		
<b>Video Input</b>	PAL, SECAM, NTSC 3.58/4.43			
<b>External Connections</b>				
AV-1	Input	21-pin Scart	RGB, A/V	
AV-2	Input/Output	21-pin Scart	RGB, A/V	
HDMI	Input	High Definition 1080i		
AV-4	Input (side)	4-pin RCA jack RCA jacks	S-video Video - composite Audio L+R	
YPbPr	Input	RCA jacks RCA jacks	Video Audio L+R	
VGA Connection	15-Pin			
Line output		RCA jacks	Audio L+R	<b>DVB</b> is a registered trade mark of the DVB project.
DIGITAL (coaxial)		RCA jacks	DTV Audio PCM-AC3	

# Specifications and accessories

## 23W330DG

<b>Broadcast Systems / Channels</b>		<b>Programme Positions</b>	100	
PAL I	UHF UK21-UK69	<b>Stereo</b>	Nicam, German	
	VHF E2-E12, S1-S41		2 carrier system	
PAL-B/G	UHF E21-E69	<b>Visible Screen Size</b>	23" diagonal	
	VHF E2-E12, S1-S41	(approx.)		
SECAM-L	UHF F21-F69	<b>Display</b>	16:9	
	VHF F1-F10, B-Q			
SECAM-D/UHF	R21-R69	<b>Screen Resolution</b>	1360x768	
	VHF R1-R12			
<b>DVB-T Broadcast Systems</b>		<b>Sound Output</b> (at 10% distortion)	2 x 5W RMS	
country	VHF	UHF		
UK	-	21-69	<b>Power Consumption</b>	120W (max)
France	05-12	21-69	<b>Standby</b> (approx.)	<1.0W
Germany	05-12	21-69		
	05-12			
Italy	excluded	21-69	<b>Dimensions</b>	605mm (W) 424,4mm (H) 97mm (D) (without stand)
Spain	21-69			605mm (W) 466mm (H) 229mm (D) (with stand)
Switzerland	05-12	21-69		
Sweden	05-12	21-69	<b>Weight</b> (approx.)	8,4 Kg (with stand) 7,4 Kg (without stand)
Finland	05-12	21-69		
Greece	05-12	21-69	<b>Headphone Socket</b>	3.5mm stereo
Austria	05-12	21-69		
<b>Video Input</b>	PAL, SECAM, NTSC 3.58/4.43	<b>Accessories</b>	Remote control 2 batteries (AAA, IEC R03 1.5V) P Clip	
<b>External Connections</b>				
AV-1	Input	21-pin Scart	RGB, A/V	
AV-2	Input/Output	21-pin Scart	RGB, A/V	
HDMI	Input	High Definition 1080i		
AV-4	Input (side)	4-pin RCA jack RCA jacks	S-video Video - composite Audio L+R	
YPbPr	Input	RCA jacks RCA jacks	Video Audio L+R	
VGA Connection		15-Pin		
Line output		RCA jacks	Audio L+R	
DIGITAL (coaxical)		RCA jacks	DTV Audio PCM-AC3	

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